

P-05-785 Suspend Marine Licence 12/45/ML to dump radioactive marine sediments from the Hinkley Point nuclear site into Wales coastal waters off Cardiff – Correspondence from the Petitioner to the Committee, 13.11.17

Outline/Summary submission from the Stop the Dump campaign to the Petitions Committee

The Campaign to re-assess the decision to permit the disposal of 300,000 tonnes of radioactively contaminated sediment at the Cardiff Grounds disposal site is concerned that the environmental and human health (dose) risks from the proposed disposal have not been adequately researched and that any conclusions based on the current incomplete data, are unreliable.

The sediments to be dredged are adjacent to the waste pipes used for the discharges from Hinkley's 4 existing reactors. Analysis, commissioned by UK Government agencies, shows that the sediment is contaminated by radioactive waste discharged to sea over 50+ years of operations at the Hinkley site. Calculations derived from the official data indicate that the proposed dredge sediments may hold at least 7 billion Bqs of aggregated radioactivity, yet reports state that doses to humans would be very low.

We note that although sedimentary radioactive material is initially likely to disperse, a number of studies carried out in Wales have proved that it later re-concentrates in coastal and estuarine mudflats and salt marshes, and is also available for sea-to-land transfer during episodes of coastal flooding.

Two studies at Welsh coastal sites have demonstrated sea to land transfer of marine radioactivity, one has clearly shown the entry of marine radioactivity into coastal terrestrial food chains (dairy/meatstock) up to 10 miles inland, evidence which further implies the entry of marine radioactivity into arable and horticultural food chains and hence dietary doses (via terrestrial foodstuffs) of marine radioactivity. The presence of airborne marine radioactivity in terrestrial coastal zone environments plainly also implies the potential for inhalation doses

Additional concerns are based upon the following issues|:

1: Absence of baseline data:

a: Despite our ongoing review of the scientific literature, the Campaign has, to date, found no evidence of any (empirical or modelling) study of the long, medium and short term environmental behaviour and fate of radioactive material deposited into the Cardiff Grounds site.

b: Thus, there appears to be a complete absence of information information about how the (at least) 7 billion Bqs of aggregated radioactivity, attached to the sediments, will behave in the Welsh inshore waters, or where those contaminated sediments will eventually end up being deposited

c: apart from some small area investigations of liquid radioactive discharges from the GE Healthcare Ltd/Maynard Centre, consisting of a very limited sample set taken from sites between the Orchard Ledges and Lavernock Point, we have, to date, found no evidence of any wider research into the nature and concentrations of South Wales coastal environment radioactivity.

d: thus there appears to be a complete absence of any data on the current levels of radioactivity in the extensive inter-tidal and sub-tidal sedimentary environments (estuarine mudflats (Usk, Wye etc) and the very extensive coastal fringing inter-tidal mudflats along the coast of the Gwent levels etc.

(NB: these are repeatedly shown by many studies to be the kind of environment where radioactively contaminated sediments suspended in the marine water column, will be deposited and where, as a result of such deposition, radioactivity concentrations will be elevated)

e: without such baseline data, it is impossible to properly check/monitor the impact of the disposal of the 7 billion bqs of aggregated radioactivity in the Hinkley sediments

2: Incomplete data on the radiological status of the Hinkley sediments:

a: Hinkley's radioactive discharges to sea contain over 50 radio-nuclides, but the analysis in support of the proposal to dump has only investigated 3 of them. Thus, the actual aggregated radioactivity content of the sediments will be much higher than indicated by the available analysis suggests.

b: the campaign does not believe that the analysis for only 3 of the 50+ radio nuclides believed to be constituents of the liquid waste streams of the Hinkley site, is

The Campaign requests series of actions as follows:

A: a full Environmental Impact Assessment including improved radiological surveying as advised and requested by this Campaign and the completion of the appropriate baseline data gathering studies recommended above

B: a Public Inquiry, or some form of “open hearing” of contra-indication independent evidence and a Public Consultation to take place before any dump of the Hinkley sediments is permitted. “

C public disclosure of precisely which Agency and which WG minister “signed off” on the Licence and what radiological expertise was available to NRW. (and/or their predecessors) and the Welsh Government

D: complete radiological analysis and core sampling, commissioned and scoped by Natural Resources Wales, after public hearings of contra-indicating evidence, to be publicly reported and discussed, to take place before any dump of the Hinkley sediments is permitted.

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